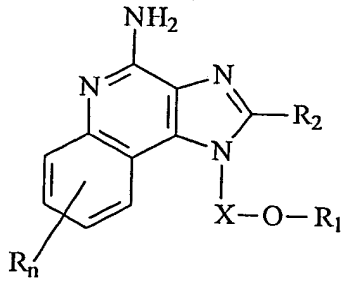
WHAT IS CLAIMED IS:

1. A compound of the formula (I):



(I)

wherein: **X** is $-CHR_3-$, $-CHR_3$-alkyl-, or $-CHR_3$-alkenyl-;

$\mathbf{R_1}$ is selected from the group consisting of:

-alkenyl;

-aryl; and

$-R_4$–aryl;

$\mathbf{R_2}$ is selected from the group consisting of:

-hydrogen;

-alkyl;

-alkenyl;

-aryl;

-heteroaryl;

-heterocyclyl;

-alkyl-Y-alkyl;

-alkyl-Y- alkenyl;

-alkyl-Y-aryl; and

- alkyl or alkenyl substituted by one or more substituents selected from the group consisting of:

-OH;

-halogen;

-$N(R_3)_2$;
-CO-$N(R_3)_2$;
-CO-C_{1-10} alkyl;
-CO-O-C_{1-10} alkyl;
-N_3;
-aryl;
-heteroaryl;
-heterocyclyl;
-CO-aryl; and
-CO-heteroaryl;

$\mathbf{R_4}$ is alkyl or alkenyl, which may be interrupted by one or more –O– groups;

each $\mathbf{R_3}$ is independently H or C_{1-10} alkyl;

each **Y** is independently –O– or –$S(O)_{0-2}$-;

n is 0 to 4; and

each **R** present is independently selected from the group consisting of C_{1-10} alkyl, C_{1-10} alkoxy, hydroxy, halogen and trifluoromethyl;

or a pharmaceutically acceptable salt thereof.

2. A compound or salt of claim 1 wherein R_1 is –alkyl–aryl.

3. A compound or salt of claim 1 wherein R_1 is –$(CH_2)_{0-3}$–phenyl.

4. A compound or salt of claim 1 wherein R_1 is –$(CH_2)_{0-3}$–substituted phenyl.

5. A compound or salt of claim 1 wherein X is –CH(alkyl)(alkyl)– wherein the alkyl groups can be the same or different.

6. A compound or salt of claim 1 wherein X is –CH_2–CH_2–.

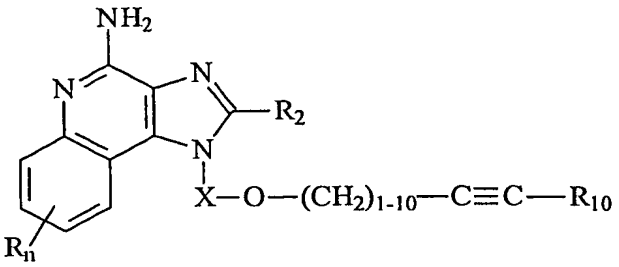
7. A compound or salt of claim 1 wherein X is –$CH(C_2H_5)(CH_2)$–.

8. A compound or salt of claim 1 wherein R_2 is H.

9. A compound or salt of claim 1 wherein R_2 is alkyl.

10. A compound or salt of claim 1 wherein R_2 is –alkyl–O–alkyl.

11. A compound of the formula (II)



(II)

wherein **X** is $-CHR_3-$, $-CHR_3$-alkyl-, or $-CHR_3$-alkenyl-;

$\mathbf{R_{10}}$ is selected from the group consisting of:

-H;

-alkyl;

-alkenyl; and

-aryl;

$\mathbf{R_2}$ is selected from the group consisting of:

-hydrogen;

-alkyl;

-alkenyl;

-aryl;

-heteroaryl;

-heterocyclyl;

-alkyl-Y-alkyl;

-alkyl-Y- alkenyl;

-alkyl-Y-aryl; and

-alkyl or alkenyl substituted by one or more substituents selected from the group consisting of:

-OH;

-halogen;

-$N(R_3)_2$;

-CO-$N(R_3)_2$;

-CO-C_{1-10} alkyl;

-CO-O-C_{1-10} alkyl;

-N_3;

-aryl;

-heteroaryl;

-heterocyclyl;

-CO-aryl; and

-CO-heteroaryl;

n is 0 to 4;

each **Y** is independently –O– or –$S(O)_{0-2}$-;

each $\mathbf{R_3}$ is independently H or C_{1-10} alkyl; and

each **R** present is independently selected from the group consisting of C_{1-10} alkyl, C_{1-10} alkoxy, hydroxy, halogen and trifluoromethyl;

or a pharmaceutically acceptable salt thereof.

12. A compound of claim 11 wherein R_{10} is aryl.

13. A compound or salt of claim 11 wherein R_{10} is —$(CH_2)_{0-3}$—phenyl.

14. A compound or salt of claim 11 wherein R_{10} is —$(CH_2)_{0-3}$–substituted phenyl.

15. A compound or salt of claim 11 wherein X is –CH(alkyl)(alkyl)–, wherein the alkyl groups can be the same or different.

16. A compound or salt of claim 11 wherein X is –CH_2–CH_2–.

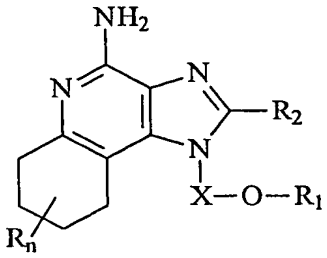
17. A compound or salt of claim 11 wherein X is $-CH(C_2H_5)(CH_2)-$.

18. A compound or salt of claim 11 wherein R_2 is H.

19. A compound or salt of claim 11 wherein R_2 is alkyl.

20. A compound or salt of claim 11 wherein R_2 is alkyl-O-alkyl.

21. A compound of the formula (III)



(III)

wherein: **X** is $-CHR_3-$, $-CHR_3$-alkyl-, or $-CHR_3$-alkenyl-;

R_1 is selected from the group consisting of:

-aryl;

-alkenyl; and

$-R_4$–aryl;

R_2 is selected from the group consisting of:

-hydrogen;

-alkyl;

-alkenyl;

-aryl;

-heteroaryl;

-heterocyclyl;

-alkyl-Y-alkyl;

-alkyl-Y-aryl;

- alkyl-Y- alkenyl; and

- alkyl or alkenyl substituted by one or more substituents selected from the group consisting of:

-OH;

-halogen;

-$N(R_3)_2$;

-$CO\text{-}N(R_3)_2$;

-$CO\text{-}C_{1\text{-}10}$ alkyl;

-$CO\text{-}O\text{-}C_{1\text{-}10}$ alkyl;

-N_3;

-aryl;

-heteroaryl;

-heterocyclyl;

-CO-aryl; and

-CO-heteroaryl;

$\mathbf{R_4}$ is alkyl or alkenyl, which may be interrupted by one or more –O– groups;

each $\mathbf{R_3}$ is independently H or $C_{1\text{-}10}$ alkyl;

each **Y** is independently –O– or $-S(O)_{0\text{-}2}$-;

n is 0 to 4; and

each **R** present is independently selected from the group consisting of $C_{1\text{-}10}$ alkyl, $C_{1\text{-}10}$ alkoxy, hydroxy, halogen and trifluoromethyl;

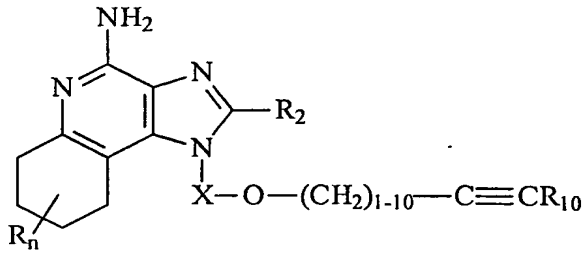
or a pharmaceutically acceptable salt thereof.

22. A compound or salt of claim 21 wherein R_1 is $-(CH_2)_{0\text{-}3}$—substituted phenyl.

23. A compound or salt of claim 21 wherein R_2 is H or alkyl.

24. A compound or salt of claim 21 wherein R_2 is –alkyl–O–alkyl.

25. A compound of the formula (IV):



(IV)

wherein: **X** is $-CHR_3-$, $-CHR_3$-alkyl-, or $-CHR_3$-alkenyl-;

$\mathbf{R_{10}}$ is selected from the group consisting of:

-H;

-alkyl;

-alkenyl; and

-aryl;

$\mathbf{R_2}$ is selected from the group consisting of:

-hydrogen;

-alkyl;

-alkenyl;

-aryl;

-heteroaryl;

-heterocyclyl;

-alkyl-Y-alkyl;

-alkyl-Y-aryl;

-alkyl-Y- alkenyl; and

- alkyl or alkenyl substituted by one or more substituents selected from the group consisting of:

-OH;

-halogen;

$-N(R_3)_2$;

$-CO-N(R_3)_2$;

$-CO-C_{1-10}$ alkyl;

-CO-O-C_{1-10} alkyl;
-N_3;
-aryl;
-heteroaryl;
-heterocyclyl;
-CO-aryl; and
-CO-heteroaryl;

each $\mathbf{R_3}$ is independently H or C_{1-10} alkyl;

each **Y** is independently -O- or - $S(O)_{0-2}$-;

n is 0 to 4; and

each **R** present is independently selected from the group consisting of C_{1-10} alkyl, C_{1-10} alkoxy, hydroxy, halogen and trifluoromethyl;

or a pharmaceutically acceptable salt thereof.

26. A pharmaceutical composition comprising a therapeutically effective amount of a compound or salt of claim 1 and a pharmaceutically acceptable carrier.

27. A pharmaceutical composition comprising a therapeutically effective amount of a compound or salt of claim 11 and a pharmaceutically acceptable carrier.

28. A pharmaceutical composition comprising a therapeutically effective amount of a compound or salt of claim 21 and a pharmaceutically acceptable carrier.

29. A method of inducing cytokine biosynthesis in an animal comprising administering a therapeutically effective amount of a compound or salt of claim 1 to the animal.

30. The method of claim 29 wherein the cytokine is IFN-α.

31. A method of inducing cytokine biosynthesis in an animal comprising administering a therapeutically effective amount of a compound or salt of claim 11 to the animal.

32. The method of claim 31 wherein the cytokine is IFN-α.

33. A method of treating a viral disease in an animal comprising administering a therapeutically effective amount of a compound or salt of claim 1 to the animal.

34. A method of treating a neoplastic disease in an animal comprising administering a therapeutically effective amount of a compound or salt of claim 1 to the animal.

35. A method of treating a viral disease in an animal comprising administering a therapeutically effective amount of a compound or salt of claim 11 to the animal.

36. A method of treating a neoplastic disease in an animal comprising administering a therapeutically effective amount of a compound or salt of claim 11 to the animal.

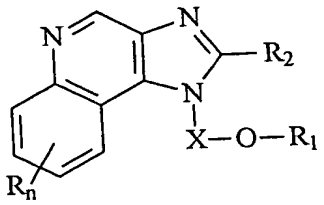
37. A method of inducing cytokine biosynthesis in an animal comprising administering a theraputically effective amount of a compound or salt of claim 21 to the animal.

38. The method of claim 37 wherein the cytokine is IFN-α.

39. A method of treating a viral disease in an animal comprising administering a therapeutically effective amount of a compound or salt of claim 21 to the animal.

40. A method of treating a neoplastic disease in an animal comprising administering a therapeutically effective amount of a compound or salt of claim 21 to the animal.

41. A compound of the formula (V):



(V)

wherein **X** is $-CHR_3-$, $-CHR_3$-alkyl-, or $-CHR_3$-alkenyl-;

$\mathbf{R_1}$ is selected from the group consisting of:

-aryl;

-alkenyl;

$-R_4-$aryl; and

$-(CH_2)_{1-10}-C\equiv C-R_{10}$;

$\mathbf{R_2}$ is selected from the group consisting of:

-hydrogen;

-alkyl;

-alkenyl;

-aryl;

-heteroaryl;

-heterocyclyl;

-alkyl-Y-alkyl;

-alkyl-Y- alkenyl;

-alkyl-Y-aryl; and

- alkyl or alkenyl substituted by one or more substituents selected from the group consisting of:

-OH;

-halogen;

$-N(R_3)_2$;

$-CO-N(R_3)_2$;

$-CO-C_{1-10}$ alkyl;

$-CO-O-C_{1-10}$ alkyl;

$-N_3$;

-aryl;

-heteroaryl;

-heterocyclyl;

-CO-aryl; and

-CO-heteroaryl;

$\mathbf{R_4}$ is alkyl or alkenyl, which may be interrupted by one or more $-O-$ groups;

each R_3 is independently H or C_{1-10} alkyl;

R_{10} is selected from the group consisting of H, alkyl, alkenyl and aryl;

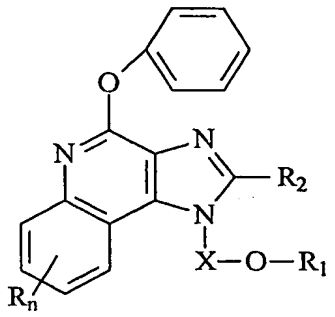
each **Y** is independently –O– or $–S(O)_{0-2}–$;

n is 0 to 4; and

each **R** present is independently selected from the group consisting of C_{1-10} alkyl, C_{1-10} alkoxy, hydroxy, halogen and trifluoromethyl;

or a pharmaceutically acceptable salt thereof.

42. A compound of the formula (VI):



(VI)

wherein **X** is $–CHR_3–$, $-CHR_3$-alkyl-, or $–CHR_3$-alkenyl-;

R_1 is selected from the group consisting of:

-aryl;

-alkenyl;

$-R_4$–aryl; and

$—(CH_2)_{1-10}—C\equiv C-R_{10}$;

R_2 is selected from the group consisting of:

-hydrogen;

-alkyl;

-alkenyl;

-aryl;

-heteroaryl;

-heterocyclyl;

-alkyl-Y-alkyl;

-alkyl-Y- alkenyl;

-alkyl-Y-aryl; and

- alkyl or alkenyl substituted by one or more substituents selected from the group consisting of:

-OH;

-halogen;

-$N(R_3)_2$;

-$CO\text{-}N(R_3)_2$;

-$CO\text{-}C_{1\text{-}10}$ alkyl;

-$CO\text{-}O\text{-}C_{1\text{-}10}$ alkyl;

-N_3;

-aryl;

-heteroaryl;

-heterocyclyl;

-CO-aryl; and

-CO-heteroaryl;

$\mathbf{R_4}$ is alkyl or alkenyl, which may be interrupted by one or more –O– groups;

each $\mathbf{R_3}$ is independently H or $C_{1\text{-}10}$ alkyl;

$\mathbf{R_{10}}$ is selected from the group consisting of H, alkyl, alkenyl and aryl;

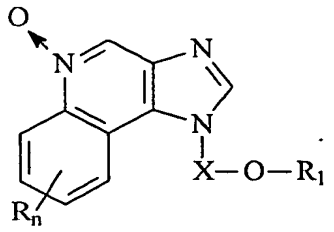
each **Y** is independently –O– or $-S(O)_{0\text{-}2}$-;

n is 0 to 4; and

each **R** present is independently selected from the group consisting of $C_{1\text{-}10}$ alkyl, $C_{1\text{-}10}$ alkoxy, hydroxy, halogen and trifluoromethyl;

or a pharmaceutically acceptable salt thereof.

43. A compound of the formula (VII):



(VII)

wherein: **X** is $-CHR_3-$, $-CHR_3$-alkyl-, or $-CHR_3$-alkenyl-;

$\mathbf{R_1}$ is selected from the group consisting of:

-aryl;

-alkenyl;

$-R_4$–aryl; and

$-(CH_2)_{1-10}-C\equiv C-R_{10}$;

$\mathbf{R_4}$ is alkyl or alkenyl, which may be interrupted by one or more –O– groups;

each $\mathbf{R_3}$ is independently H or C_{1-10} alkyl;

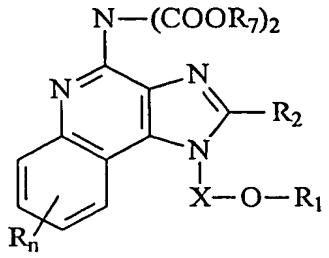
$\mathbf{R_{10}}$ is selected from the group consisting of H, alkyl, alkenyl and aryl;

n is 0 to 4; and

each **R** present is independently selected from the group consisting of C_{1-10} alkyl, C_{1-10} alkoxy, hydroxy, halogen and trifluoromethyl;

or a pharmaceutically acceptable salt thereof.

44. A compound of the formula (VIII):



(VIII)

wherein: **X** is $-CHR_3-$, $-CHR_3$-alkyl-, or $-CHR_3$-alkenyl-;

$\mathbf{R_1}$ is selected from the group consisting of:

-aryl;

-alkenyl;

$-R_4$–aryl; and

$-(CH_2)_{1-10}—C\equiv C-R_{10}$;

$\mathbf{R_2}$ is selected from the group consisting of:

-hydrogen;

-alkyl;

-alkenyl;

-aryl;

-heteroaryl;

-heterocyclyl:

-alkyl-Y-alkyl;

-alkyl-Y- alkenyl;

-alkyl-Y-aryl; and

- alkyl or alkenyl substituted by one or more substituents selected from the group consisting of:

-OH;

-halogen;

$-N(R_3)_2$;

$-CO-N(R_3)_2$;

$-CO-C_{1-10}$ alkyl;

$-CO-O-C_{1-10}$ alkyl;

$-N_3$;

-aryl;

-heteroaryl;

-heterocyclyl;

-CO-aryl; and

-CO-heteroaryl;

R_4 is alkyl or alkenyl, which may be interrupted by one or more –O– groups;

each R_3 is independently H or C_{1-10} alkyl;

R_{10} is selected from the group consisting of H, alkyl, alkenyl and aryl;

each **Y** is independently –O– or $-S(O)_{0-2}-$;

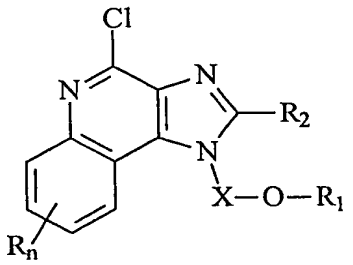
n is 0 to 4;

each **R** present is independently selected from the group consisting of C_{1-10} alkyl, C_{1-10} alkoxy, hydroxy, halogen and trifluoromethyl; and

R_7 is *tert*-butyl or benzyl;

or a pharmaceutically acceptable salt thereof.

45. A compound of the formula (IX)



(IX)

wherein: **X** is $-CHR_3-$, $-CHR_3$-alkyl-, or $-CHR_3$-alkenyl-;

R_1 is selected from the group consisting of:

-aryl;

-alkenyl;

$-R_4$–aryl; and

$-(CH_2)_{1-10}—C\equiv CH$;

R_2 is selected from the group consisting of:

-hydrogen;

-alkyl;

-alkenyl;

-aryl;

-heteroaryl;
-heterocyclyl;
-alkyl-Y-alkyl;
-alkyl-Y- alkenyl;
-alkyl-Y-aryl; and
- alkyl or alkenyl substituted by one or more substituents selected from the group consisting of:
-OH;
-halogen;
-$N(R_3)_2$;
-$CO\text{-}N(R_3)_2$;
-$CO\text{-}C_{1\text{-}10}$ alkyl;
-$CO\text{-}O\text{-}C_{1\text{-}10}$ alkyl;
-N_3;
-aryl;
-heteroaryl;
-heterocyclyl;
-CO-aryl; and
-CO-heteroaryl;

$\mathbf{R_4}$ is alkyl or alkenyl, which may be interrupted by one or more –O– groups;
each $\mathbf{R_3}$ is independently H or $C_{1\text{-}10}$ alkyl;
each **Y** is independently –O– or $-S(O)_{0\text{-}2}$-;
n is 0 to 4; and
each **R** present is independently selected from the group consisting of $C_{1\text{-}10}$ alkyl, $C_{1\text{-}10}$ alkoxy, hydroxy, halogen and trifluoromethyl;
or a pharmaceutically acceptable salt thereof.